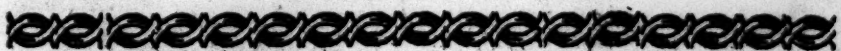




A N  
A D D R E S S  
T O T H E  
P U B L I C,

On the present METHOD of  
I N O C U L A T I O N.



[ Price One Shilling. ]





3

A N  
A D D R E S S  
T O T H E  
P U B L I C,

On the present METHOD of  
I N O C U L A T I O N :

PROVING  
That the Matter communicated is not the SMALL-  
Pox, because Numbers have been inoculated  
a second, third, and fourth Time; that there-  
fore it is no Security against a future Infection.

WITH  
OBSERVATIONS on the Preparatory Medicines, and the  
remarkable CASE of an eminent Personage, who had  
the natural SMALL-Pox in two Years and an half  
after Inoculation.

To which is added,  
An INQUIRY into the Nature of the CONFLUENT  
Pox, and its Cure.

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By WILLIAM LANGTON, M. D. *R*

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L O N D O N :

Printed for R. HORSFIELD, in *Ludgate-street*; and  
E. EASTON in *Salisbury*.

M.DCC.LXVII,

A D D R E S S

P U B L I C

I N C O L A T I O N



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At the request of the Trustees of the British Museum.

BY WILLIAM LINGNOTT M.D.

L O N D O N

Printed by W. Smith, 10, Old Bailey, London.



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THE  
P R E F A C E.

**I**T was neither the Desire of  
appearing in Print, nor the  
Affectation of being particular,  
much less any Intention of injuring  
the Practice of Inoculation, that  
induced the Writer to compose  
the following Pages. Principles  
of the most benevolent Kind, and  
A such

such as concern the Lives and Happiness of his Fellow-subjects, were the sole Motives to this Undertaking. The Public need not be informed, how much it is the Interest of Inoculators to propagate and continue a Practice, which, in a shorter Time, produces more net Profit, than any thing ever invented by the greatest Empiric; which is fully confirmed, if the Report be true, that Mr. *Sutton*, in the three last Years, has made forty or fifty thousand Pounds.

Did Inoculation preclude all future Infection, every successful Operator would merit the best Favours of the Public : But what shall



shall we say or think of a Set of Men, who will invite you to be inoculated, and at the same Time tell you, that there is a Necessity sometimes of performing it three or four Times? Is this consistent with our Sentiments of Honesty or their Protestations? Surely a more bare-faced and grosser Imposition was never obtruded on the World; nor a readier Acquiescence found from the Inconsideration of Mankind. But lest I should be thought to have advanced this without any Foundation, I shall adduce Part of an Advertisement by Messrs. *Slatter* and *Duke*, Surgeons at *Barnfield* near *Ringwood*, *Hants*, dated *June 18th, 1767*.—  
 “ The first Objection I shall take

“ Notice of is, that the Disorder  
 “ being in general so light, it is  
 “ imagined there is Danger of a  
 “ second Infection. Whenever this  
 “ has been supposed to have hap-  
 “ pened, I am certain the Opera-  
 “ tion has failed, which not being  
 “ discovered by the Operator,  
 “ proves to me that he was not  
 “ experienced in the Practice ; for  
 “ it may always be determined in  
 “ four, five, or six Days, some-  
 “ times sooner ; and if there is the  
 “ least Reason to doubt, it is very  
 “ easy to inoculate a second, third,  
 “ or fourth Time, which may be  
 “ done without the least Inconve-  
 “ nience.—I have inoculated seve-  
 “ ral Patients three or four Times  
 “ for their own Satisfaction, hav-  
 “ ing



“ing very little, or perhaps, no  
“Eruption.”

I have not selected this Advertisement to injure these Gentlemen, for I am convinced their Method is as successful as any other, but it was the latest and clearest. I shall make a few Remarks on it, and conclude.

1. It is demonstrated in the Course of the ensuing Pages, that the Lightness of the Disorder, together with its Want of genuine Symptoms, proves the Matter communicated not to be variolous, and therefore a second Infection is to be dreaded.

2. They

2. They say, when this second Infection has happened, they are certain the first Operation failed.— This is an eminent Discovery— and proves second Infections are no unusual Things.

3. 'Tis very easy, say they, to inoculate a second, third, or fourth Time.—I agree with the Gentlemen, that it is very easy and very profitable for Inoculators: But whether any would chuse to endanger his Life so often, or be gulled out of his Money by so simple an Artifice, is another Matter.

4. They



4. They acknowledge freely, that they have inoculated some a third or fourth Time.—I ask any reasonable Being, whether a stronger Proof can be brought of the Insufficiency of Inoculation, than this Concession? For was it the real Small-Pox, that they at first communicated, there would be no Occasion, nor indeed Possibility of bringing on the same Disease a second Time.

In a Word, no Subject so justly claims universal Attention as this, wherein the present and succeeding Generations are deeply interested. If the Writer has given the smallest Assistance towards forming  
a

a right Judgment, on the present Practice of Inoculation, and revealing a popular, and perhaps a pernicious Error, he shall think his Time and Pains, without any other Gratification, well employed.

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E R R A T A.

Page 8. Line 21. for *sedante*, read *sed ante*. Ibid. Line 22, for *loim*, read *olim*.



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A N  
A D D R E S S

TO THE  
P U B L I C,

On the present METHOD of  
I N O C U L A T I O N.

WHOEVER calmly considers the Conduct of Mankind, will find that Observation of *Seneca* fully confirmed—That we live not according to the Dictates of Reason, but by Imitation; *Non ad Rationem sed ad similitudinem vivimus*. Hence it is, that the most ridiculous Dress becomes fashionable, the most

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incon-

incongruous Medicine a Panacea, and the most ignorant Physician a Man of Learning and Importance. To pursue this Thought through all its subordinate Absurdities is beside our Purpose; sufficient it is to remark, that the present Rage of Inoculation is exactly of the same Kind.

With what Precipitancy and Inconsideration do People now engage in a Practice, which in the Beginning was thought to be very precarious, and indeed dangerous. It was therefore judged prudent to try the first \* Experiments on condemned Criminals,

\* When we read in *Tertullian de Anim.* cap. X. of *Hierophilus*, who dissected 600 live Subjects, we are naturally led to join with *Celsus* in our Abhorrence of so much Cruelty. — *Incidere vivorum corpora & crudele & supervacuum est: mortuorum vero, discantibus necessarium. Proœm. extre.* And what is the modern Practice of trying Experiments on Criminals inferior? as if the Horrors of Condemnation, and of undergoing the legal Punishments, are not abundantly sufficient, without wantonly and barbarously inflicting new Tortures on a miserable Wretch.

*Sævior es tristi Busrîde, sævior illa*

*Qui falsum lento torruit igne bovem,*

*Ovid.*



Criminals, before the Lives of other Subjects were endangered. This Caution must shew the Vanity of physical Principles, and the Ignorance of the Faculty after practising and writing on the Disease for above seven hundred Years; or it must prove the Impossibility of deducing any Conclusion *à priori*, without recurring to these barbarous Experiments. This is the Truth; for the greatest Physician that ever lived could never foresee that the real benign Small-Pox would assume the Appearance it now exhibits on the Inoculated; and for the Truth of this, I appeal to the Silence of Medical Writers on this Head.

The Fact is, that the Contagion and Symptoms are essentially different from the true Variolus, as hereafter will be fully proved and exemplified: And it will further appear, that it is nothing but popular Madness, and the artful Conduct of Operators, that force Men, of good Sense and Reputation, to lend their Ex-

ample and Names to countenance so gross a public Imposition.

Again, The Secret of treating this Disorder must be confined to a single Family, and to Men, (who if they have any Modesty, will confess themselves to be) very inferior in natural and acquired Attainments to many of the same Profession, yet whose Ignorance of this Disease they would suggest to the World. There is something so bewitching in Mysteries of every Kind, that Mankind, at all Times, and in all Places, have been the Dupes of Quackery and Empiricism: The Artful and Cunning have encouraged this Propensity, and in the Compass of a few Years, unexpectedly found themselves in opulent Circumstances. What may be allowable in Men of desperate Fortunes, becomes shameful in those whose Education and regular Practice put them above such mean Artifices; and yet we see some, from whom better Things might be expected, run into the contemptible Affectation



tation of new Discoveries. Of this Sort, the World perhaps never had a more eminent Instance than in the *Celebrated Inoculator*; whose Medicines and Method seem very unworthily to have employed the Attention of many excellent Physicians, and who, after their most diligent Inquiries, come off as knowing as those who scrutinize the Secrets of Free-masonry, where there is nothing to be discovered. From this, some may imagine I am an Enemy to Inoculation, or the *Inoculator*—I declare I am not—Inoculation, if properly performed, is a public Good; but as the present Practice is, exceeding precarious.

Dr. *Baker*, Physician to the Household, in a neat Tract printed last Year, inquires into the Superiority of the present Method of Inoculation, above the best Practice in the natural Way; and he very judiciously, on the Authority of *Sydenham*, fixes it in the free Intercourse the Patient is allowed with the external Air—and naturally

turally supposes, that the present Operators took the Hint from this great Man, and improved it. If Dr. *Baker* imagines the cool Regimen was discovered by *Sydenham*, he errs for want of Information.

\* The general Opinion is, that the Small-Pox was unknown to the Antients; let this be as it will, the *Arabians* are universally acknowledged to be the first who give such a Description of it, as agrees with what we now observe.

*Rhazes*, who flourished in the tenth Century, constantly pursued the cool Method, and during the Disease ordered large

\* Where there is an Inclination to Putrescency, Heat will complete it, according to this Aphorism of *Boerhaave*. *Calor auctus liquidissima dissipat ex nostro cruore, id est, aquam, spiritus, sales, olea subtilissima; reliquam Massam siccatur, concresecere cogit, in immeabilem & irrosubilem materiem; sales oleaq; expedit, attenuat, acriora reddit, exhalat, movet, hinc minima vasa atterit, rumpit, fibras siccatur, rigidas contractasque reddit. Hinc subito multos, celeres, periculosos letales morbos producit; qui a priori facile deduci possunt.* Aphorif. 689,



large Quantities of Pomegranates, and Acids, and a free Air ; neither did he ever find Cause to repent of this Course.

This Practice, notwithstanding the Inequality of Climates (for *Rhazes* lived in *Persia*) was used for 500 Years—until some taking the Small-Pox to be a cold Humour, endeavoured to expel it by Alexipharmics and Cordials; and others esteeming it a hot caustic Matter, strove to subdue it by cooling Medicaments. This Distinction was revived in modern Times, and had *Sydenham* on one Side, and *Morton* on the other. \* A German Physician

\* “ Regimine hoc calefactorio abutuntur, aut per-  
 “ verse utuntur, penes variolos, præter medicos impe-  
 “ ritos femellæ, eorum nutrices, cunctos illorum sta-  
 “ tim ac ubi sub ebullitionis tempore de exanthematis  
 “ his nondum certi, in hypocaustis æstuantibus deti-  
 “ nent, ac stragulis perfuse torrent atque hac ratione  
 “ ad internecionem ducunt: quos liberiori nihilomi-  
 “ nus ac temperatiori aura committere, sub principio,  
 “ imprimis morbi, decebat. Non est recens, sed  
 “ vetustus satis, hic error, adeoque non tantum ex  
 “ modernis

Physician shews it was the constant Practice of the cool Regimen that prevailed among the most reputable of the Faculty in his Country, and that from a very early Period. These Authorities, out of many that might be adduced, sufficiently evince cooling Medicines, and a free Use of Air, to have been no new Inventions; and did Physicians more frequently use these, such a lamentable Carnage would not be made by the Disease in the natural Way.

I think it may be laid down as certain, that a Disease is to be esteemed the same universally, when it presents the same Appearances, and *vice versa*; and that any Deflection from these Appearances, must bring it under a different Denomination, and have different Indications of Cure. Let us then, by this clear and plain Rule, examine

“ modernis Sydenham. Observ. circ. morb. acut.  
 “ hinc inde, sedante hunc Joh. Dan. Horstius Obser-  
 “ vat. Anat. 9. & loim jamjudum Forestus 6. Observ.  
 “ 44. eum carbone notarunt ac damnarunt.”

Bohnius de Offic. Med. Leipf. 1704. p. 383.



examine the natural and inoculated Small-Pox. Patients seized with the first Kind, have a Chillness succeeded by a feverish Heat; a Pain in the Head, Back, and Stomach, a Nausea and Restlessness—the Pustules are prominent, and filled with well concocted Pus, inclining to yellow; there is a considerable Fever, and the Patient often light-headed. These Symptoms ever attend, in a greater or less Degree, the benign Pox, and infallibly preclude all future Infection. On the other Hand, the inoculated Pox, (if it deserves that Name) has not one of the preceding Symptoms, because the inoculated Matter is not the same with the true Small-Pox. The Patients feel no Uneasiness or Fever, because as the proper Contagion is not communicated, Nature is not roused to protrude the morbid Matter, and only such a partial Ferment is excited, as is attendant on any cuticular Disorder. The old Method of inoculating, was, to take the Infection from a good Subject, where the Pustules were well matured, whereby

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the Operator was sure of succeeding; but the present Practice is, to take the Matter from the Incision, the fourth Day after that Incision is made; by this Means you have a contagious caustic Water, instead of laudable Pus, and a slight Ferment in the Lymph is raised, producing a few watry Blotches, in the Place of a perfect Extrusion of the variolous Matter. Besides, if it was the real Small-Pox that was communicated, there would be imminent Danger of giving the worst instead of the best Sort, by taking the Infection from the Incision, before it can be discovered of what Kind it will be. In the natural Way, the Pock exsiccates gradually, because, being of a thick Consistence, it cannot so easily re-enter the Pores, and therefore it takes Time to dry and scale off.—Whereas in the inoculated, it being nothing but clear Lymph, is soon reabsorpt by the cutaneous Glands, and disappears in a few Hours. From this very Symptom it can be demonstrated, that the Matter at present inoculated, is by no Means



Means variolous. For every one acquainted with this Disorder, knows, that the most dangerous Stage is that of Exsiccation; when it is, that the Physician exerts his Skill to prevent a Recession of the Matter internally; for if this should happen, there ensues the most dangerous Consequences.—If it falls on the Meninges of the Brain, it will cause a Delirium, Phrenies, and epileptic Convulsions; if on the Ventricle and Intestines, Cardialgia, Gripings, Inflammations, Hiccup, and Diarrhoea. But no such Effects are ever found on the Repercussion of the inoculated Matter, which being hastily separated from the Fluids, and not loaded with noxious Principles, either evaporates, or is again sucked in without Injury.—But the true Variolous is exceeding caustic, while it remains in the Body, being sheathed by the gelatinous and oleous Parts of the animal Liquids, it is prevented from hurting the internal Organs: But the Case is quite otherwise, when it is actually separated on the Superficies; it then becomes

■ Fluid *sui generis*, and extremely poisonous, and operates as above-mentioned. Add to this, the exposing the Inoculated to very cold Air in a rigorous Season, is not found injurious, whereas such a Practice would be mortal in the real Pox. For Cold binds the cuticular Spiracles, stops the lymphatic Circulation, Sordes are congested, and the caustic Matter is translated to some of the nobler Parts,

But it may be argued, that the inoculated Pock would never exhibit the Appearance it now does, was it not variolous. To this I answer, by speaking a Word of Contagions. These are received either from such Particles in the Air, as with some, are fitted to generate Disorders from a Predisposition of Humours, or from Contact.

How an Infection can thus remain suspended, so as to give the Small-Pox to one who has never had it, and not to another who has; or what the Disposition of  
of



of Habit, or the Modification of the Miasmata, are utterly inexplicable; indeed, the utmost Exertion of our most exquisite Faculties is not able to discover the remote Causes, Relations, and Properties of Bodies; yet this ought not to discourage us from making Experiments, and collecting Facts and Observations, so as thereon to ground a rational System. Further, Contagions have distinct Natures, and, like some Medicines, operate on particular Parts. Thus in a malignant Dysentery the Intestines are alone affected; and when either the benign, confluent, or putrid Small-Pox seizes a Family, it preserves its Type, how different soever the Subjects may be in Age and Constitution. The same is observed of Infections from Contact, and the same essential Difference prevails. By endeavouring to establish the Distinction of Contagions, I am, perhaps needlessly, employing my Time, it being a Matter of such Notoriety, as to require no Proof.—It is yet certain, that there is nothing of greater Importance in the Study  
of

of Physic, than an accurate Discrimination of Diseases; and that in none is this Precision less applied than in the Small-Pox; otherwise, so palpable and ignorant an Imposition as Inoculation, could never be obtruded on the World. Besides the benign and confluent Pox, there is also the anomalous: By this Term I suppose is meant, a Disease partaking in Part, though not perfectly reducible to the other Kinds.—If it differs from them, it requires a particular Treatment, otherwise it is absurd to give it this Name: At any rate the anomalous Pox proves, that there are more Species, and particular Contagions of this Distemper, than what systematical Writers allow, or perhaps are aware of. \* *Juncker* joins the Small-Pox and

\* “Variolæ & morbilli sunt febrium acutarum ex-  
 “anthematicarum species epidemicè grassantes plerum-  
 “que, ubi natura motibus secretoriis & excretoriis,  
 “ultra gradum naturalem auctis, materiem fermentiscentem ulcerosam ad peripheriam corporis propellere, & hac ratione eandem eliminare intendit.”  
 Conspect. pag. 617.



and Measles in one Definition, which is as applicable to the malignant, spotted, and pestilential Fevers, as to these; for they are eruptive and contagious, and throw out the ulcerous Matter to the Surface of the Body.

But to return to the Objection, that the inoculated Matter would never assume the Appearance it now does, was it not variolous: In answer to this, I have proved Contagions of every Sort to be separate and distinct, and that we cannot with Propriety call that the Small-Pox which has not the usual Symptoms, unless we give the Name of Variolous to the various Contagions of pustulous and pruriginous Affections. No one will say, that those Eruptions called the Measles, Chicken and Swine-Pox; have any other Relation to the real Small-Pox than their Appearance, which they share in common with other cuticular Disorders. The inoculated Virus is nearer related to the three last named Diseases, than to the true Pox.

I do

I do believe that at first the real Pock was communicated, but after prevented from taking proper Effect by the Interposition of Doses of Mercury and Antimony.— For these liquifying the Blood and Juices, counteracted the Coagulation of the natural Ferment, and prepared the Matter, by its Tenuity, to permeate with Ease the cutaneous Glands: By this Means it becomes a Disease that never would have existed, but for this Treatment. The Disorder being very trifling on the Patient from whom the Infection is taken, becomes more so, to those to whom it is given; so that, in Reality, it is one of the completest Bubbles that ever was so universally run into.

Dr. *Holland*, a Friend to Inoculation, owns, " That the latent Seeds of the Disorder might not be entirely secreted from the Blood, and therefore the Small-Pox may be excited *de novo*, and again appear." And again, " Reason as well as Experience shews, that in a genuine



"genuine and complete Eruption, the  
 "Matter of the Disease must be entirely  
 "evacuated, and therefore there will be  
 "no Possibility of a Return; but in an  
 "imperfect Crisis, Part of the original  
 "Cause may remain, which by the Con-  
 "stitution of the Air, or other Accidents  
 "of new Contagion, may be again se-  
 "creted from the Blood, and appear in  
 "the Form of Pustules."

What can be said more sensible and  
 conclusive on the Subject, than what this  
 learned Physician has advanced here? It  
 strongly corroborates our Argument of the  
 Insufficiency of Inoculation against a fu-  
 ture Infection.—For the most Zealous  
 for this Practice must acknowledge,  
 that there are neither the Symptoms,  
 Quantity, or Quality of Matter to secure  
 an Exemption from this Disease. Did  
 the *English* Nation attend to the Conduct  
 of their polite and learned Neighbours,  
 the *French*, in this Affair, they would now  
 prevent, what hereafter they will have

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abundant

abundant Reason to repent of. The Rage of Inoculation there was incredible ; it began among the lower Classes, and soon ascended to the higher : Nothing then was wanting to preserve its Credit, but Success.—Numbers were inoculated, and with as much seeming happy Effect as at present.—But by some Misfortune (or rather good Fortune, as it revealed a popular Error) the natural Small-Pox broke out ; the Inoculated, regardless of it, ventured freely among the Infected—they found their Deception too late, and many at the Expence of their Lives. The Eyes of the Nation were opened, the Learned and Disinterested applied to examine this Practice, and after the most accurate and dispassionate Inquiry, pronounced it dangerous to the Subjects. Mons. *Gatti*, the celebrated Inoculator at *Paris*, gives the Case of Multitudes in that of the Duchess of *Boufflers* ; wherein, with all the Candour and Ingenuity of a good Citizen, he tacitly acknowledges the Insufficiency of an Art, whereby he had acquired such an ample Fortune, and



and no less Credit. Though this Letter has already appeared in Print, it will not be displeasing to lay it before the Reader, as of itself it will almost convince him of the Inutility of Inoculation.

S I R,

“ It is but too true, that the Duchess of  
 “ *Boufflers*, whom I inoculated about two  
 “ Years and an half ago, is just recovered  
 “ from the natural Small-Pox; which  
 “ proved to be a distinct and favourable  
 “ Sort. This Event having excited the  
 “ Attention of the Public, I thought it my  
 “ Duty to give the World a particular  
 “ Account of the Duchess’s Inoculation;  
 “ and she, upon my Application, has been  
 “ pleased to recollect all the Circumstances,  
 “ and to favour me with the following  
 “ Certification signed with her own Name.”

“ On the 12th of *March*, 1763, I was  
 “ inoculated for the Small-Pox, and about  
 “ four or five Days afterwards a Redness  
 “ appeared round the Orifice, which Mons.

“ *Gatti* called an Inflammation; and as-  
 “ sured me, was a Sign that the Small-  
 “ Pox had taken Effect: These were the  
 “ very Terms he used. This Redness, or  
 “ Inflammation, increased every Day, and  
 “ about the seventh or eighth Day the  
 “ Wound began to suppurate. There ap-  
 “ peared also about the Wound six small  
 “ Risings, or Pimples, which successively  
 “ suppurated and disappeared the next Day.  
 “ *Monf. Gatti*, upon these Appearances,  
 “ again assured me, that the Small-Pox  
 “ had taken Effect. In the Afternoon of  
 “ the eleventh or twelfth Day of my Ino-  
 “ culation, I felt a general Uneasiness and  
 “ Emotion, a Pain in my Head and my  
 “ Back, and about my Heart; in conse-  
 “ quence of which I went to Bed sooner  
 “ than ordinary: I slept well however, and  
 “ rose without any Disorder in the Morn-  
 “ ing. These<sup>”</sup> Symptoms *Monf. Gatti*  
 “ assured me were the Forerunners of the  
 “ Eruption. The next Day a pretty large  
 “ Rising or Pimple appeared in my Fore-  
 “ head, which came to a Head, turned  
 “ white,



" white, and then dried away, leaving a  
 " Mark, which continued many Days,  
 " The Wound in my Arm continued to  
 " suppurate seven or eight Days, and Mons.  
 " Gatti now assured me, I had nothing to  
 " fear from the Small-Pox; and upon  
 " this Assurance I relied without the least  
 " Doubt, and continued in perfect Confi-  
 " dence of my Security, till the natural  
 " Small-Pox appeared. I continued very  
 " well during the whole Time of my  
 " Inoculation, except one Day, as men-  
 " tioned above, and I went out every  
 " Day."

*Montmorency, D. de Boufflers.*

" It is very true that I assured the Du-  
 " chess she had nothing to fear from the  
 " Small-Pox, but the Event has proved  
 " that I was mistaken. I considered the  
 " Accidents or Symptoms which followed  
 " the Incision, as certain Signs that the  
 " Inoculation had taken Effect; as the  
 " characteristic Symptoms of the inocu-  
 " lated Small-Pox did not follow, I mean

" a

" a Fever succeeded by a Suppuration of  
 " the Wound, a Suppuration different  
 " from that which might take place be-  
 " fore the Fever, I thought that the Ac-  
 " tion of the variolous Virus could pro-  
 " duce no other Effect in the Patient,  
 " than what appeared round the Incision,  
 " and that she was therefore secure from  
 " the Small-Pox; and I was confirmed  
 " in this Opinion, by her continuing ex-  
 " posed to the Contagion with her Daugh-  
 " ter and another Lady who were inocu-  
 " lated at the same Time, and had the  
 " Small-Pox with the usual Symptoms.  
 " I was persuaded according to the general  
 " Opinion, that when Signs of the Small-  
 " Pox have been taken, appear round the  
 " Incision, that Disease will certainly fol-  
 " low, supposing the Patient to be suscep-  
 " tible of it, and that if the Disease does  
 " not then follow, the Patient is not sus-  
 " ceptible of it. The Case of the Du-  
 " chess proves this Opinion to be false,  
 " whether the Signs of the Small-Pox  
 " having been taken are equivocal, or  
 " whether



“ whether the Virus may act upon that  
 “ particular Part, without spreading to the  
 “ rest of the Body. I make no Account  
 “ of the Pimple which appeared upon  
 “ her Forehead, because it had neither  
 “ the Form nor the Course of a variolous  
 “ Pustule; and the Duchess herself, who  
 “ has now good Reason to be acquainted  
 “ with variolous Pustules, is of the same  
 “ Opinion. As the same Thing that has  
 “ happened to the Duchess, has happened  
 “ also to many others, where Inoculation  
 “ is frequent; and as it may and must  
 “ happen again, it is of great Importance  
 “ to prevent the Mistakes, and calm the  
 “ Anxieties it may produce: And for this  
 “ Reason I have always thought that  
 “ every Patient, who has received the  
 “ real Small-Pox by Inoculation, ought to  
 “ have a Certificate of it given them by  
 “ their Physician. I have given many  
 “ such Certificates, and I should be glad  
 “ if every such Person, whom I have ino-  
 “ culated, would apply to me for one.”

Monf.

Monf. Gatti appears to poffefs as much Veracity as real Merit; and though his private Fortune was endangered by the Cafe related, yet he chofe rather to facrifice that, than draw a Veil over Truth, to the Prejudice of Mankind. He fcorns to palliate his Miftake by flimfy Arguments, but generously acknowledges it, and draws a very juft and important Conclusion from it—That as Inoculation had failed in the Cafe of the Duchefs, and Numbers befide, the Inoculator was bound to give a Certificate to thofe who had the real Small-Pox.

Why ought not every one to demand, and have fuch a Security? It is certainly a Hint of very great Importance, but we can fcarce ever hope to fee it complied with, fo great is the mercenary Spirit of Inoculators. I would ferioufly recommend it to thofe who have been inoculated, to compare their Situation and Circumftances with thefe of the Duchefs of *Boufflers*, during



during that Period; and they will find, that they have as abundant Reason to expect a second Attack as she had. Indeed it is not above one in ten who have so many variolous Symptoms, as may be remarked in her Case: The Pain in the Head, Back, and Heart, are among the genuine Signs of the true Small-Pox recited before; as is the Fever, with a consequent Eruption: It is no wonder if *Monf. Gatti* pronounced positively on the *Duchess's* Case.—If then no Dependance is to be laid on the most favourable Appearances, what Confidence can even the most Credulous conceive of a future Exemption, where none of these are, or at most but very partially?

But further to evince the Uncertainty of Inoculation, let us observe the Diversity of Methods used by Practitioners. It is said, that *Mr. Sutton* lays great Stress on the preparatory Course, and to me it seems with good Reason: For though scarce one of the Patients will have the real Pox, yet

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by the exhibiting Mercurials he effectually prevents it, and accordingly his is thought the most successful Practice. Whereas Dr. *Ruston* affirms, that Medicines are of little Service before Infection: In this Way there is a Probability of having the true Pox, and great Danger by thwarting Nature in her Operations, by administering such violent Medicines as Mercury, Tartar, emetic and drastic Purges; the Humour must be disturbed in the Stomach, and from thence precipitated into the Mass of Fluids, and through the Emunctories. By irritating the nervous Parts, they throw the whole System into Convulsions, stop the Menfes, and are certain Death to the Hypochondriac and Hysteric: In a Word, the Weak and Tender are sure of ruining their Constitutions, by submitting to Inoculation, and have the mortifying Reflection of being still liable to the same Disease.

Let us now subjoin a few Remarks on the natural Small-Pox, and the Treatment



ment of it. I agree with the judicious Dr. *Ruston*, that this Disease is to be considered, contrary to the common Acceptation, as approaching more to the putrid than inflammatory Kind. To explain this, by saying, the Pox is an assimilating Ferment, and whatever tends to Fermentation is advancing to Putrefaction, though perfectly just, is rather obscure; we will then endeavour to elucidate it. The Doctrine of Ferments universally prevailed in the Time of *Etmuller* and *Sylvius*; but *Pitcairn* and others opposed it, however it seems to be again revived by Dr. *Macbride* of *Dublin*. What is said to be done by an assimilating Ferment, is the Consequence of the original Contagion; and as Dr. *Ruston* observes, this Ferment shews itself in Proportion to the Acrimony of the Infection: Hence it follows, that the Contagion of the watry and chrystalline Pox, is essentially different from the black small confluent Sort with Petechiæ; because in these the Ferment, Putrefaction, and Dissolution of the Mass of

Blood and Humours, essentially vary; so that as we before argued, we can never be sure of having had the real Small-Pox, unless the true Diagnostics appear, which scarce ever do on the Inoculated.

The confluent Pox is a cutaneous and infectious Disorder, communicated by contagious Miasmata, and producing an alkaliescent State of Blood and Juices. Though Acid and Alkali are Terms somewhat uncertain, and found transmutable into each other, yet by the Use of the first here, I understand such a Salt as fuses the animal Liquids, makes the Serum abound, and loads it with gross urinous Salts. That the Body is replete with Salt, will appear from a few Particulars. *Hoffman* declares, *Quamvis homo omnia insipida & sine sale assumat alimenta, tamen sal in ejus urina deprehendetur.* The Air is the Cause of this. Our Atmosphere is a subtle fluid Medium, and a Colluvies of all Sorts of Substances, and the Fountain of animal and vegetable Life.

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Mr. Boyle informs us of many unobserved Effects, which will let us see farther into its Nature. Marcasites, says he, being kept for some Time in a dry Room, soon had vitriolic Efflorescences, and after crumbled into a Powder rich in Copperas. On Lime in old Walls a nitrous Matter is often found adhering, from which Saltpetre is procurable. Allum Ore deprived of its Salt, recovers it in Time. *Aqua regia* will not dissolve Gold *in vacuo*. The Herbs used for the officinal Preparation of alkaline Salt, if burned *in vacuo*, leave nothing but a white Powder, devoid of any Principle; but the same performed in the open Air, afford a fixed Salt. What other Reason can be assigned, but that an alkaline Salt wherewith the Air is filled, is sucked in by the Herb in each successive Undulation of fresh Air; or else the Ashes are impregnated therewith, after the Fire is extinct. This very alkaline Salt, with which the Air is so demonstrably replete, is the Cause of most cutaneous Disorders,  
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and above all the Variolous: Neither will it be thought strange, that so much of this Salt should be collected in our Bodies, when so large a Quantity of Air is necessary to Life. For by a certain Experiment made on a Gallon of Air included in a Bladder, and through a Pipe reciprocally inspired and expired, it became unfit for Respiration in little more than a Minute of Time. Dissolve the human Body by a chemical Analysis, and it affords a Water impregnated with a urinous Spirit, which re-distilled gives a large Quantity of white alkaline Salt. It is further demonstrable, that upon receiving the contagious Miasmata, the Fluids are spoiled by an assimilating Ferment, which, acting on the Solids, occasions a preternatural Crispature of the Skin: By this Means the volatile Salts used to pass off this Way, are retained, the Urine is small and insipid, its Salt being absorbed into the Mass of Blood, which it melts down to mere Serosity. After some Time the Stricture remits, and Eruptions follow; which



which at first are watry, but the Fluid exhaling, the gross Salts are left to erode the Skin: At length it becomes a white Pellicle, whereon if Vinegar be poured, it ferments as any Acid will with an Alkali. In a Word, the more this Subject is viewed in this Light, the more convincing will it appear, as it can be supported on chemical, mechanical, and physical Principles.

Dr. *Baker* before-cited, benevolently wishes, that Practitioners would make such Observations on this Disorder, as might render the Cure of it more certain. To contribute so far as I am able to so humane a Desire, I have selected from a great Number, a few Errors which are to be met with in common Practice and some Books of Physic.

I. The Drinks in this Distemper ought to be such as obtund Acrimonies, and restore the Crasis of Blood, with Doses of depurated Nitre. It must be temperate  
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and simple, says Dr. *Woodward*, not heating nor chilling; strong compound Waters, Cordials and Spirits not to be given, even in Case of Faintness. The celebrated *Hoffman's* Words are to the same Purpose:—Before and at Eruption, all hot Expellents, the Seeds of Water-creffes and Columbines, the Dung of Sheep and Horses, the bezoardic and alexipharmic Tinctures, likewise the Spirits of Haffshorn, with a hot Regimen as to Diet and Chamber, are justly disapproved of. For hereby the Mass of Blood and Humours are wonderfully inflamed, Heat, Anxiety, Convulsions, Spasms, and a Delirium, if impending, are greatly exasperated.—*Tom. iv. p. 158.* Even where there is a poor thin blood, lax Fibres, and a trembling weak Pulse, *Huxham*, an approved Writer, recommends some easy cordial nervous Medicines; but, adds he, —All this may be done without large Doses of volatile alcalous Salts and Spirits, Snakeroot, Brandy, and strong Wines.



2. Before and at Eruption, it is usual to exhibit Absorbents and Diaphoretics, to repress the violent Emotion of Things in the Stomach; indeed they are given in most Fevers; yet by scrutinizing the Matter, we find it to be a dangerous Practice. For the Intention of a Diaphoretic is so to comminute the Fluids, as to enable them to pass the cutaneous Glands; for this they must have vast Subtilty of Parts, and be exceeding penetrating. But the more fixed Diaphoretics, which are also Absorbents, never produce one good Effect. For Oyster-shells, Crabs-claws and Eyes, Pearl, and the rest, will not dissolve in Water; for if triturated therewith, and that filtered, it leaves nothing. Now of what Use can such Substances be? They absorb Acids in the Stomach, say some.—But what if there be no Acid? They then lodge in the Ventricle, and being con-creted therewith, the Mucus that lines it, form hard indissoluble Masses, occa-  
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fioning Loss of Appetite, Vomiting, Obstructions, and frequently Death. The other Absorbents that endure the Force of Fire, become Limes, and are therefore highly corrosive and dangerous; and it is well known that a Drachm of burnt Hartshorn taken for some Days, has proved mortal.

3. Dr. *Mead* recommends Blisters in the confluent and watry Pox, supposing that a Drain is thereby made for the serous Liquid, and the hot Humour evacuated; and on the same Principle *Huxham* joins him. But it may be argued, that the Matter drawn off by Blisters, is of a different Constitution from that which fills the Pustules, so that instead of aiding they retard Nature. For the Fluid drawn off this Way, being thinner than the variolous Matter, must leave that Matter so thickened, as to be unfit to permeate the subcutaneous Glands. Perhaps these Considerations have made foreign Physicians so sparing in their Use.

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Cantharides contain a volatile caustic Salt, exceeding penetrating and inflaming ; they irritate the nervous Coats, and render the Systole of the Arteries stronger, whereby the Velocity of the Blood and Humours is increased. According to this, whenever there is a strong quick Pulse and Fever, with Danger of Convulsions and Delirium, there Blisters are certain Death ; they inflame the Meninges, Ventricle, and Nerves so violently, that no created Being can long survive it. This is no modern Whim, *Baglivi*, who expressly wrote on them, clearly and fully proves it. And yet how frequent is it to blister in acute Fevers ; it ought seriously to be considered, whether Numbers do not die in such Cases from the Application of Vesicatories.

4. *Huxham* depends much upon the proper Use of Opiates in this Disorder ; nay, he adds, there is no doing without them, where the Humour is acrid, and the Pustules numerous. I never could

find such good Effects from their Use. The Medicines of this Class are the most uncertain in their Operations, and the Dose difficult to be ascertained, of any other. Besides, if they relax the Solids (as they certainly do) they will necessarily induce a Torpor and Heaviness on the Circulation of the Fluids, which alone move by their Oscillation: This then tends to stop and not assist the vital Motions, as the learned Doctor thought. In this I am countenanced by a celebrated Writer.—Many Men (says he) of solid Learning among the Moderns, have remarked, that more Damage than Profit accrues from the Use of Opiates; for they fix and retain the peccant Matter, either in Quality or Quantity; and so far are they from removing the Stagnations of the Humours, that they rather increase them, and prevent the proper Secretions.—*Hoffm. Diff. 1.*

5. Bleeding has been esteemed very dangerous, but we are assured from Experience,



perience, that it is extremely salutary on many Occasions, especially if there be a strong Fever; for by drawing away some Blood the Heat is abated, and a freer Circulation promoted, and Inflammation avoided. *Ballonius* long since has observed, that neither purging nor bleeding retarded Eruption.—*Epidem.* p. 36, 49.

Before I conclude, there are two Things to be remarked, which further confirm the Inutility of Inoculation. The first is the great *Suttonian* Secret, which, according to Mr. *Houlton*, consists in being able to give the Infection before Eruption or Fever, and consequently before any Contagion can be received from the Person, otherwise than by Incision. This we have before shewn, is the strongest Proof, that it is not the genuine Small-Pox that he communicates. The other is the Opinion of Mr. *Chandler*, that the Superiority of Inoculation is to be deduced, from a mild and unconcocted Lymph, of which the Infection is constituted. I confess, that of  
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all the Tracts on this Subject, this comes the nearest to Truth, and seems to touch on what we here have more fully proved. I sincerely wish, that some abler Hand may undertake this Subject, and more clearly demonstrate the Insufficiency of the present Method of Inoculation.



**T H E   E N D .**